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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/846,254	05/02/2001	Mark A. Kampe	80168-0102 P5088	5905

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EXAMINER

HO, ANDY

ART UNIT	PAPER NUMBER
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2194

DATE MAILED: 03/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/846,254

Applicant(s)

KAMPE ET AL.

Examiner

Andy Ho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-12, 14-22, 33-40, 43, 62-65, 67-80, 85, 86, 91 and 94 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-12, 14-22, 33-40, 43, 62-65, 67-80, 85, 86, 91 and 94 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

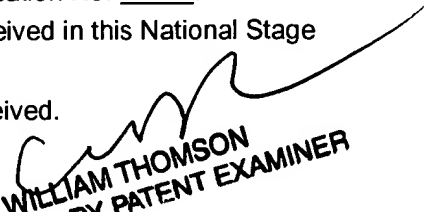
- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.


WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER

DETAILED ACTION

1. This action is in response to the amendment filed 12/20/2005.
2. Claims 1-4, 6-12, 14-22, 33-40, 43, 62-65, 67-80, 85-86, 91 and 94 have been examined and are pending in the application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 6-12, 14-22, 33-40, 43, 62-65, 67-69, 74-75, 78-80, 85-86 and 94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen U.S Patent No. 6,477,585 in view of Smith U.S Patent No. 6,658,487.

As to claim 1, Cohen teaches a network (network 3, Fig. 1) having a plurality of nodes (nodes A, B, and C, Fig. 1) connected by a digital data communication link (communication link, line 66 column 3), comprising:

an event channel (communications through the event channel, lines 48-49 column 5) adapted to transfer an event (an event, line 26 column 5) between a publisher node (event supplier, line 20 column 5) and a subscriber node (event consumer, lines 20-21 column 5) within said network over the communication link (communication link, line 66 column 3);

a filter (consumer-side EMS filter, line 6 column 7) to process a plurality of events published on said event channel to identify said event as a matching event (...before the event consumer can receive event data, it must also define a "filter" which EMS then uses to determine whether particular events from the one or more event suppliers gets passed to that event consumer..., lines 19-22 column 6), wherein said matching event includes at least one pattern field matches a filter field within said filter (...an event "filter expression" is preferably a 3-tuple consisting of the attribute name, the attribute value, and an attribute operator which defines a compare operation. The attribute operator in a filter expression is used to effect the comparison between the named attribute in the event and the attribute value..., lines 53-60 column 6);

an application on said subscriber node (DCE application, lines 34-35 column 5) to receive said matching event (to receive and process events from one or more event suppliers, lines 34-37 column 5), wherein said application defines said filter fields within said filter (...an event consumer may use the Consumer API to define a new event filter and add it to an event filter group..., lines 43-45 column 7) and opens said event channel (communications through the event channel, lines 48-49 column 5).

Cohen further teaches (lines 43-52 column 7) an event consumer uses the Consumer API to define a new event filter and add it to an event filter group. Event filter names and thus filters can be added or deleted from event filter groups by the consumer. However, Cohen does not explicitly teach the filter is on the subscriber node.

Smith teaches an event notification system wherein an event filter is located on the same node as the event subscriber (lines 36-40 column 3; lines 58-60 column 3; Figs. 3, 4). It would have been obvious to apply the teachings of Smith to the system of Cohen because by locating an event filter in the same node as the event subscriber, the event filter could intercept and forward the appropriate events to the event subscriber as disclosed by Smith (lines 56-62 column 5).

As to claim 2, Cohen as modified further teaches an event server (EMS 22, Fig. 3) on said subscriber node adapted to receive said event and pass it to said filter from said event channel (...EMS uses the filter to determine whether particular events from the one or more event suppliers gets passed to that event consumer..., lines 19-22 column 6).

As to claim 3, Cohen as modified further teaches event server exchanges information with another event server (EMS 22 exchanges events with layer 32 of event supplier 24n, Fig. 3) on another one of the nodes of the network.

As to claim 4, Cohen as modified further teaches the application opens said event channel through said event server (EMS sets up an event channel to decouple the communications between the supplier and consumer, lines 41-43 column 9).

As to claim 6, Cohen as modified further teaches the event further includes a data field (each event is associated with a fixed header part and a variable length data part, lines 3-4 column 10).

As to claim 7, Cohen as modified further teaches the event channel has a unique name (EMS event channel, line 28 column 11).

As to claim 8, Cohen as modified further teaches the unique name is registered in a naming service within said network (...the naming service is used by application servers to store their location and interfaces, known as server bindings..., lines 64-66 column 4).

As to claim 9, Cohen as modified further teaches publisher node has a configuration being known to said event server on said subscriber node (a supplier registers with the event management service by receiving a handle, lines 6-7 column 6; ...event origin specifies where the event originated. The origin specifies the netname of the host where the supplier is running, the name of the supplier, descname, and supplier process identification pid, uid, gid..., lines 8-12 column 20; lines 30-51 column 1).

As to claim 10, Cohen as modified further teaches an event server (layer 32 of event supplier 24n, Fig. 3) on said publisher node publishes said event on said event channel (layer 32 sending events to EMS 22, Fig. 3).

As to claim 11, Cohen as modified further teaches said subscriber node has a configuration being known to said event server on said publisher node (lines 30-51 column 1).

As to claim 12, it is a system claim of claims 1 and 2. Therefore, it is rejected for the same reasons as claims 1 and 2 above. Cohen as modified further teaches said event server includes an event control block (event log file, line 13 column 6) to subscribe to said event channel for said application; and said event is placed in a queue on said node by said event server (...after filtering, a queuing mechanism 47 is used to

control the flow of events to the interested consumers..., lines 8-11 column 7) prior to the use by said application.

As to claim 14, Cohen does not explicitly teach a separate event control manager within the event server in the event consumer side. However, Cohen teaches that the event server also plays the role of controlling the event control block (...once the event arrives at EMS via a remote procedure call, it is stored in the Event Log 42. EMS 22 then performs a parsing operation to determine whether the event gets passed on to any event consumers..., lines 1-4 column 7; EMS writes the event to the EMS Event Log in order to save the event in case the event cannot be immediately delivered, lines 50-51 column 9). Therefore one of ordinary skill in the art would conclude that the event server is also the event control manager since it controls the event control block as disclosed by Cohen (lines 1-4 column 7; lines 50-51 column 9).

As to claim 15, Cohen as modified further teaches said event control manager updates said event control block (...after the event is forwarded to all interested consumers, it is deleted from the Event Log 42..., lines 11-13 column 7).

As to claim 16, Cohen as modified further teaches event control manager detects an overload condition within said event control block (line 64 column 6 to line 13 column 7).

As to claim 17, Cohen as modified further teaches said event control manager controls a configuration of said event control block (EMS writes the event to the EMS Event Log in order to save the event in case the event cannot be immediately delivered, lines 50-51 column 9).

As to claim 18, Cohen as modified further teaches event server further includes an event protocol module to manage network connections to said event control block (lines 35-48 column 4).

As to claim 19, Cohen as modified further teaches said event control block includes a remote event control block (queuing mechanism, line 9 column 7) that correlates to a event control block.

As to claim 20, Cohen does not explicitly teach a separate event channel descriptor within the event server in the event consumer side. However, Cohen teaches that the event server also plays the role of accessing the event control block (...event arrives at EMS is stored in the Event Log 42. EMS 22 then performs a parsing operation to determine whether the event gets passed on to any event consumers..., lines 1-4 column 7). Therefore one of ordinary skill in the art would conclude that the event server is also the event channel descriptor since it accesses the event control block as disclosed by Cohen (lines 1-4 column 7).

As to claim 21, Cohen as modified further teaches an event application program interface to publish and subscribe to said event channel (an EMS Application Programming Interface API 32 may be used by event supplier to reach the Event Management Service 22, lines 43-46 column 5; consumer API, line 44 column 7).

As to claim 22, it is a system claim of claim 1. Therefore, it is rejected for the same reasons as claim 1 above.

As to claim 33, it is a method claim of claim 1. Therefore, it is rejected for the same reasons as claim 1 above. Cohen as modified further teaches said event channel

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providing a shared communication path with other nodes (line 62 column 7 to line 16 column 8).

As to claim 34, it is a method claim of claims 7-8. Therefore, it is rejected for the same reasons as claims 7-8 above.

As to claim 35, it is a method claim of claim 10. Therefore, it is rejected for the same reasons as claim 10 above.

As to claim 36, Cohen as modified further teaches dispatching a callback responding to said event (lines 30-39 column 16).

As to claim 37, Cohen as modified further teaches creating said event channel (EMS sets up an event channel to decouple the communications between the supplier and consumer, lines 41-43 column 9).

As to claims 38-39, they are method claims of claims 1. Therefore, they are rejected for the same reasons as claim 1 above.

As to claim 40, it is a method claim of claim 12. Therefore, it is rejected for the same reasons as claim 12 above.

As to claim 43, Cohen as modified further teaches invoking an event control block (lines 12-29 column 6).

As to claim 62, it is a method claim of claims 1 and 15. Therefore, it is rejected for the same reasons as claims 1 and 15 above. Cohen as modified further teaches granting the event server access to an event channel (consumer authentication and authorization, line 59 column 12; consumer's access rights, line 12 column 14); creating a naming context for said event channel (...the naming service is used by application

servers to store their location and interfaces, known as server bindings..., lines 64-66 column 4); wherein the granted access corresponds to an application running on the node (DCE application, lines 34-35 column 5); sending a filter control message (RPC 31, Fig. 3) to another event server (layer 32, Fig. 3) at another node (event supplier 24n, Fig. 3).

As to claims 63-64, they are method claims of claim 12. Therefore, they are rejected for the same reasons as claim 12 above.

As to claim 65, it is a method claim of claim 7. Therefore, it is rejected for the same reasons as claim 7 above.

As to claim 67, Cohen as modified further teaches unlocking said event control block (line 66 column 6 to line 13 column 7).

As to claim 68, Cohen as modified further teaches changing an access permission to said event channel (... a supplier's access rights may be verified on the first event send to EMS, and the consumer's access rights may be verified before forwarding events to that consumer. Authenticated RPC is used to access the EMS supplier and consumer Remote API..., lines 11-15 column 14).

As to claim 69, it is a method claim of claim 1. Therefore, it is rejected for the same reasons as claim 1 above.

As to claim 74, it is a method claim of claims 1, 13-14 and 62. Therefore, it is rejected for the same reasons as claims 1, 13-14 and 62 above.

As to claim 75, Cohen as modified further teaches building said filter control message (lines 1-3 column 2).

As to claim 78, it is a method claim of claim 68. Therefore, it is rejected for the same reasons as claim 68 above.

As to claim 79, Cohen as modified further teaches unmarking said remote event control block object (...after the event is forwarded to all interested consumers, it is deleted from the Event Log 42..., lines 11-13 column 7).

As to claim 80, it is a method claim of claim 1. Therefore, it is rejected for the same reasons as claim 1 above. Cohen as modified further teaches opening said event channel in a write mode or a read mode (lines 41-62 column 9).

As to claim 85, Cohen as modified further teaches queuing said event in an event control block (event log file, line 13 column 6) at said node corresponding to said application.

As to claim 86, it is a method claim of claim 16. Therefore, it is rejected for the same reasons as claim 16 above.

As to claim 94, Cohen as modified further teaches a plurality of additional publishers nodes (event suppliers 24a to 24n, Fig. 3) and a plurality of additional subscriber nodes (event consumers 26a to 26n, Fig. 3).

4. Claims 70-73, 76-77 and 91 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen in view of Smith and Novik U.S Patent No. 6,314,533.

As to claim 70, Cohen teaches a method comprising:

building a filter (consumer-side EMS filter, line 6 column 7);

receiving an event (...before the event consumer can receive event data, it must also define a "filter" which EMS then uses to determine whether particular events from the one or more event suppliers gets passed to that event consumer..., lines 19-22 column 6). Cohen does not explicitly teach the filter is on the node that receiving the event, and pattern field is taken from a binary tree.

Smith teaches an event notification system wherein an event filter is located on the same node as the event subscriber (lines 36-40 column 3; lines 58-60 column 3; Figs. 3, 4). It would have been obvious to apply the teachings of Smith to the system of Cohen because by locating an event filter in the same node as the event subscriber, the event filter could intercept and forward the appropriate events to the event subscriber as disclosed by Smith (lines 56-62 column 5).

Novik teaches a system of filtering events (Fig. 6) wherein the event definitions being filtered through the filtering tree being forwarding to event subscriber (Fig. 6; lines 40-53 column 14). It would have been obvious to apply the teachings of Novik to the system of Cohen because using the filtering tree would discarded any event that is not requested by the event subscriber as disclosed by Novik (lines 56-59 column 2).

As to claim 71, Novik further teaches building said search trees (assembles one or more filtering trees, lines 40-41 column 14).

As to claim 72, Novik further teaches placing heads from said plurality of search trees within said filter (filtering trees 74 within filtering module 76, Fig. 6).

As to claim 73, Novik further teaches modifying said search trees (modifying event-filtering definition, line 2 column 22).

As to claims 76-77, they are method claims of claims 70 and 73, respectively. Therefore, they are rejected for the same reasons as claims 70 and 73 above.

As to claim 91, it is a computer program product claim of claim 70. Therefore, it is rejected for the same reasons as claim 70 above.

Response to Arguments

5. Applicant's arguments filed 12/20/2005 have been fully considered but they are not persuasive.

Applicant argued that the previous Office Action improperly rejected claim 74 as claim 1 (Remarks, last paragraph page 140). In response, as clearly disclosed in the previous Office Action, claim 74 was rejected based on claims 1, 13-14 and 62. Therefore, claim 74 was not rejected based in claim 1 alone, as argued by the applicant.

Applicant argued that Smith reference teaches an event filter located on the event subscriber, but the filter does not perform matching functions and events do not have a pattern field (Remarks, last incomplete paragraph page 11 to first complete paragraph page 13; first complete paragraph page 14 to first incomplete paragraph page 16). In response, Smith reference was only used to teach the advantages of having a filter locating at the subscriber. Cohen reference was used to teach other limitations, not Smith reference.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy Ho whose telephone number is (571) 272-3762. A voice mail service is also available for this number. The examiner can normally be reached on Monday – Friday, 8:30 am – 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on (571) 272-3718.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIM) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.

Any response to this action should be mailed to:

Commissioner for Patents

P.O Box 1450

Alexandria, VA 22313-1450

Or fax to:

- AFTER-FINAL faxes must be signed and sent to (571) 273 - 8300.
- OFFICAL faxes must be signed and sent to (571) 273 - 8300.
- NON OFFICAL faxes should not be signed, please send to (571) 273 - 3762

A.H

March 5, 2006


WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER